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THE STATUS OF *SPHAERODACTYLUS PICTUS*, WITH COMMENTS ON THE DISTRIBUTION OF *S. SPUTATOR* AND *S. SABANUS*

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Garman (1887:20), in his description of *Sphaerodactylus pictus*, lists its range as the island of St. Christopher's (= St. Kitts), West Indies. Barbour, in his monograph of the genus (1921:263) and in his first checklist of Antillean amphibians and reptiles (1930:85) lists the range as St. Kitts. In his second (1935:104) and third (1937:115) Antillean checklists, Barbour includes the island of Nevis in the range of *pictus*, and states that it (*pictus*) is possibly a synonym of *S. sputator*.

In his monograph, Barbour (1921:226) separates *pictus* from *sputator* on the degree to which the dorsal scales are keeled (rather weakly in *pictus*, and strongly in *sputator*), and on the number of dorsal scales equal to the distance from the tip of the snout to the center of the eye (9 in *pictus*, and 10 in *sputator*). Examination of the types of *pictus* (MCZ 6071) from St. Kitts, and of a large series of *sputator* (MCZ 16598—16633, 16635—16641) from St. Eustatius (= Statia) indicates that the first of the two characters used by Barbour to separate these species is extremely subjective and of doubtful value. The second character, which involves allometric growth of the head and dorsal scales, varies from 7 to 10 scales in *sputator*. The number of dorsal scales in the "standard distance" of *pictus* is thus included. Further examination reveals no character of sentellation which will separate the two forms.

Garman (1887:20) describes the color and pattern of *pictus* as:

"Greyish with three or four rows of brown spots on each side. On the snout there is a brown band from each eye around the end; a median band meets these on the rostral. Behind the eyes, on the head, there are six longitudinal bands of brown, four of which join to form two on the occiput, and these meet the laterals on the neck forming two which are continued above the shoulders. A light line across the forehead from one orbit to the other. Two or three light streaks, across the back of the head and neck, appear in some. On a very young one there are five narrow, transverse, dark-edged streaks of white between the eyes and the base of the tail. There are traces of brown blotches on the lower surface."

A series of *sputator* in the Museum of Comparative Zoology indicates that the juvenile pattern of this species consists of white crossbands, with dark brown edges, on the neck, trunk, and tail. There are 5 to 8 of these crossbands between the level of the eyes and the base of the tail. The crossbands alternate with areas of dull brown ground color. The adult has a pattern of 2 to 3 white crossbands, usually with dark brown edges, on the neck and shoulders. The white markings on the trunk are always edged, at least in part, with dark brown. The pattern may be in the form of crossbands, or may be broken into wavy lines or spots. The white markings may fade to a light tan. In a few individuals the dark brown edge of the dorsal spots tends to form longitudinal rows or stripes on the light ground color. Both juveniles and adults have a dark brown stripe on the canthus rostralis, and a white stripe connecting the orbits across the top of the head. From the above description it is evident that the variation which occurs in the color pattern of *sputator* includes the pattern thought to be characteristic of *pictus* (see Fig. 1).

Since their scutellation and patterns are identical, *Sphaerodactylus pictus* Garman should be considered a synonym of *Sphaerodactylus sputator* (Sparman), and the range of *sputator* should be extended to include the island of St. Kitts.

A confusing factor in establishing the status of *S. sputator* is Barbour's reference (1923:2) to its color pattern. He states that *sputator* is:

"... One of the dichromatic forms, as are so many of the large-scaled species — and perhaps others as yet

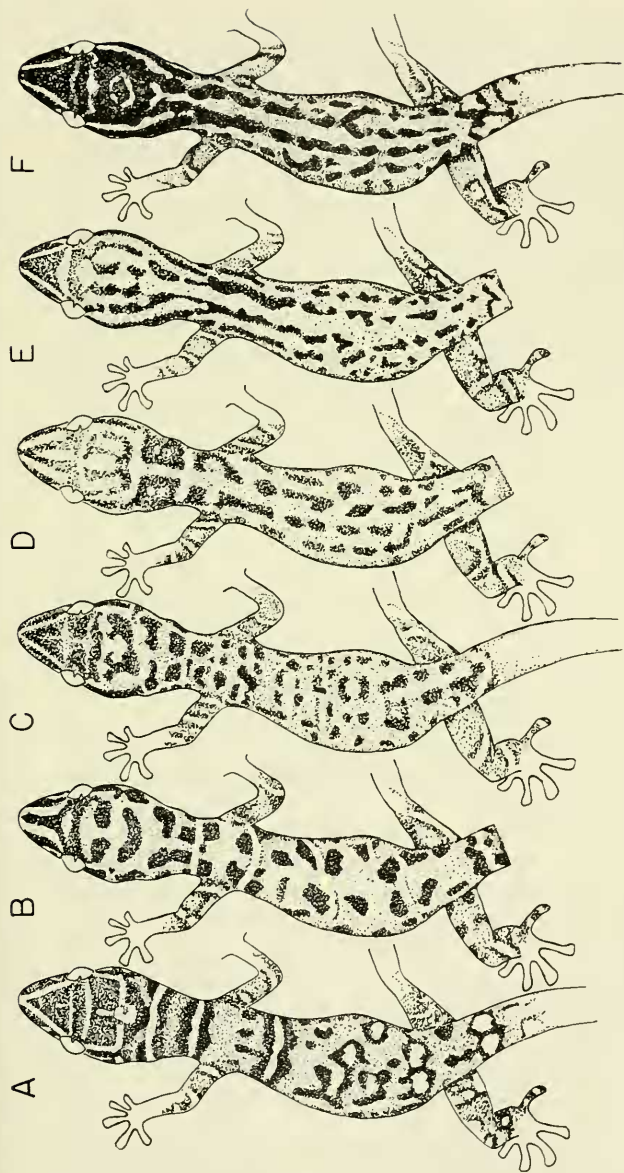


Figure 1. Variation in the trunk markings of adult *Sphaerodactylus sputator* (relative size and position is diagrammatic for ease of comparison). A and F (MCZ 16619 and 16611, respectively) are from the island of St. Kitts; B (UF 10039-2) is from St. Martin; C (UF 10038), D and E (MCZ 6071) are from St. Kitts. D and E are cotypes of the synonym, *pietus*.

little known. The types are females evidently. The males are much smaller than the females, uniform greyish brown through life, or at the most with a few fine scattered dots usually on the head. The females are large, bulky and with a great variety of broken bands, blotches and spots of varying size."

Although Barbour does not list the catalogue numbers of the specimens he refers to in this paper, he does state that they were collected on Statia in 1922 by James L. Peters. This series is MCZ 16598—16633, 16635—16641. At the time of his writing, this series contained both *S. sputator* and *S. sabanus*. This is evident in Barbour's reference to the large "females" (= *sputator*) with blotches, bands and spots, and to the small "males" (= *sabanus*) of a uniform brown.¹ Examination of the present series of *sputator* shows little or no sexual dichromatism, and the snout-vent length of the males (31-35 mm., with a mean of 32.8) is slightly greater than that of the females (28-35 mm., with a mean of 31.7).

On 10 July 1958, Dr. Walter Auffenberg and I collected an adult specimen of *S. sputator* in Basseterre, St. Kitts, thereby confirming the existence of this species at the type locality of the synonym, *pictus*. On 15 July 1958, we collected two adult *sputator* on St. Martin, 2½ miles west, and ¼ mile north of Philipsburg, near Devil's Hole.

The range of *S. sputator*, as indicated by the specimens available to me at this time, includes the islands of Statia (MCZ 16598—16633, 16635—16641 (29); UMMZ 57010), St. Kitts (MCZ 6071 (3); UF 10038), and St. Martin (UF 10039 (2); PWH 474A, 606 (5)). Future collecting will probably establish its existence on Nevis and Saba, the two remaining islands of the Saba to Nevis chain of islands.

The range of *S. sabanus* includes all of the islands of the Saba to Nevis chain of islands. It is found on Saba (MCZ 45215—45217; USNM 103985—103993, 103995—104003), Statia (MCZ 54010—54015 (158)), St. Kitts (UF 10041 (9), 10042 (9), 10043 (9), 10044 (9), 10045 (10); PWH 422; UMMZ 83317), and Nevis (UF 10040 (3); PWH 414; UMMZ 83316 (2); MCZ

¹ The *sabanus* were later separated from the series and recatalogued under the name *elegantulus* as MCZ 54010-54015. That they are not *elegantulus* is now clear since in addition to other features there is no crossbanding in the juveniles of this series. Cochran (1938) pointed out that the juveniles of *sgbanus* are unmarked like the adults, while Barbour (1921) described the crossbanded juveniles of *elegantulus*. This confusion of *elegantulus* and *sabanus* is not significant for the present paper; a study of these and other Lesser Antillean sphaerodactyls, including a redefinition of all the species, is in preparation and will be presented later.

38374). Barbour's record of *pictus* (= *sputator*) on Nevis (1935:104 and 1937:115) seems to be based on the Museum of Comparative Zoology specimens of *sabanus* listed above.

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